

CLAIMS

What is claimed is:

1. A pouch-type lithium secondary battery comprising:

a battery unit comprising:

a positive electrode plate,

a separator, and

a negative electrode plate,

wherein the separator is disposed between the positive and negative electrode plates;

electrode tabs extending from each of the positive and negative electrode plates of the battery unit, respectively;

a case having a space to accommodate the battery unit;

a sealing surface along the periphery of the space; and

a protection circuit board electrically connected to the electrode tabs;

wherein portions of each of the electrode tabs extend outside the case, and are bent in an upright position with respect to a plane of the sealing surface.

2. The pouch-type lithium secondary battery of claim 1, wherein the electrode tabs are bent a predetermined length from a leading edge of the sealing surface in a thickness direction of the case.

3. The pouch-type lithium secondary battery of claim 2, wherein the electrode tabs are bent at a substantially right angle.

4. The pouch-type lithium secondary battery of claim 2, wherein the protection circuit board is disposed between an outer wall of the case and the bent electrode tabs.

5. The pouch-type lithium secondary battery of claim 1, wherein the electrode tabs and a leading edge of the sealing surface are bent a predetermined length in a thickness direction of the case.

6. The pouch-type lithium secondary battery of claim 5, wherein the protection circuit board is disposed between an outer wall of the case and the bent electrode tabs.

7. The pouch-type lithium secondary battery of claim 1, wherein the protection circuit board is disposed such that a side edge of the protection circuit board faces the sealing surface.

8. The pouch-type lithium secondary battery of claim 1, further comprising insulating tape to provide electrical insulation between the electrode tabs and the sealing surface, wherein the insulating tape is wrapped around the portions of the electrode tabs bent from a leading edge of the sealing surface.

9. A method of fabricating a lithium secondary battery, the method comprising:
preparing a battery unit comprising a positive electrode plate, a negative electrode plate, and a separator disposed between the positive and negative electrode plates;
disposing the battery unit in a space provided in a case and sealing a sealing surface formed along the periphery of the space;
electrically connecting electrode terminals of a protection circuit board to electrode tabs extending outside the case, wherein the electrode tabs are electrically connected to each of the positive and negative electrode plates of the battery unit, respectively; and
bending portions of each of the electrode tabs extending outside of the case through the sealing surface in an upright position with respect to a plane of the sealing surface of the case.

10. The method of claim 9, wherein the electrode tabs are bent a predetermined length from a leading edge of the sealing surface in a thickness direction of the case.

11. The method of claim 9, wherein the protection circuit board is disposed between an outer wall of the case and the bent electrode tabs such that a side edge of the protection circuit board faces the sealing surface.

12. A pouch-type lithium secondary battery comprising:
a case providing a space to accommodate a battery unit;
a sealing surface along the periphery of the space; and

a protection circuit board electrically connected to electrode tabs extending outside the case from the battery unit;

wherein the electrode tabs are bent in a thickness direction of the case, the electrode tabs being respectively connected to electrode terminals of the protection circuit board.

13. The pouch-type lithium secondary battery of claim 12, wherein the protection circuit board is disposed between an outer wall of the case and the bent electrode tabs.

14. The pouch-type lithium secondary battery of claim 12, wherein a leading edge of the sealing surface is bent along with the electrode tabs.

15. The pouch-type lithium secondary battery of claim 12, further comprising insulating tape to provide electrical insulation between the electrode tabs and the sealing surface, wherein the insulating tape is wrapped around portions of the electrode tabs bent from a leading edge of the sealing surface.